THE TIMETABLE

Until Spring 1987
'Routemaster - Monarch of the Road'. Exhibition at the London Transport Museum, celebrating 30 year's service of London's famous Routemaster bus.

Monday 2 June
Library Evening, 18.00. The Society's Library open for inspection at 62 Beauval Road, Dulwich, London, SE22 8UQ.

Friday 13 June
Talk, 'Metro Track Systems', by Mr. C.F. Bonnett, Managing Director, Docklands Light Railway, LRT. 19.00 for 19.15 in the Conference Room, Baden-Powell House.

Saturday 14 June
One-day seminar, 'The Commuter's Railway'. Full details on front cover of UN 293.

Saturday 14 June
Morning visit to Bakerloo Line signal boxes at Elephant & Castle, Lambeth North and Piccadilly Circus. Numbers very restricted. Applications, with SAE, to Mr. G.A. Finch, 161 Valetta Road, London, W5 7TA. Minimum age 15 years. Associate members, please state age when applying. Please note that the visit embraces all three signal boxes and only one application is needed per person. Participants must make their own ticketing arrangements for travel to, from, and in-between visit.

Wednesday 18 June
Evening bus tour by open-top bus of the site of the Docklands Light Railway. Fare: £2.50 in advance, or £3.00 on the bus if places still available. Meet 18.50 at Liverpool Street station, route 11 bus stand. Advance bookings to: Mr. J. Barrie, 21 Endymion Road, London, N4 1EE, enclosing an SAE. Please note that this is not an LURS event, but LURS members are invited to participate.

See page 81 of this issue for further Timetable events.
The Society is pleased to announce that Mr. W.R. Clarke, President of the Society for 1986-87, has been appointed OPERATIONS DIRECTOR to the Board of London Underground Ltd., effective from Wednesday 8 April 1986. Mr. Clarke succeeds Mr. John Cope, who has retired after 48 years service on the Underground.

Mr. Clarke, 52, joined London Transport in 1958 and has wide experience of Underground railway operation. He was Divisional General Manager for the District and Piccadilly lines, and for the past three years he has been General Manager of the Docklands Light Railway project. He has been involved in work on mass transit and light railways with the International Union of Public Transport, and now takes over as head of all Underground operations.

Mr. C.F. Bonnett has been appointed Managing Director of the Docklands Light Railway project. He will oversee the present project for construction and equipping the railway, which will run from the Tower of London to Island Gardens on the Isle of Dogs, with a branch to Stratford.

The railway is due to open this summer. Mr. Bonnett will also be responsible for the projected extension into the City of London, for which Parliamentary powers are currently being sought.

Mr. Bonnett, 56, is a chartered engineer and a Fellow of the Institutions of Civil and Structural Engineers. He joined London Transport in 1964 after civil engineering experience with the Government's Ministry of Works and with British Rail, and rose to head the Underground's Civil Engineering department. He took on additional responsibility for rail signalling and electrical engineering when he became a founder member of the Board of London Underground Ltd., when the LRT subsidiary was set up in 1985.

Dr. H. Fitzhugh takes over from Mr. N. Kerr as Marketing and Development Director, who is leaving to take up a post in the private sector. Dr. Fitzhugh has a background in science. He joined London Transport in 1972, and was successively Principal Dynamist and Scientific Adviser. Since 1985 he has been LRT's Technology and Telecommunications Manager. He has been responsible for developing and commercial exploiting the Underground tunnels and tramway ducts as private sector cable routes.

THE HEATHROW UNDERGROUND EXTENSION

The £23-million Piccadilly Line extension and station to serve Heathrow Airport's newest terminal was officially opened on Tuesday 1 April 1983 by the Prince and Princess of Wales. The first fare-paying passengers used the new terminal itself on Tuesday 5 April 1986. Mr. Clarke succeeds Mr. John Cope, who has retired after 48 years service on the Underground.

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About half a dozen hardy, or maybe foolhardy enthusiasts were on hand to witness the public opening of Terminal 4 station on Saturday 12 April. The first passenger train, No. 324, having arrived empty (but scheduled as a staff train) departed one minute early at 04.58 and consisted of units 109 (leading) and 182 (rear). The second passenger train, No. 325, arrived to carry passengers at 05.08 (unit 234 leading and 169 rear) which arrived at Terminal 4 at 05.29. Although not advertised as a passenger service (it is booked to work empty from Northfields to Terminal 4), this train did in fact carry passengers, at least from Hounslow West, if not from further east. The first advertised passenger arrival at Terminal 4 was train 322 (the 05.11 from West Kensington) with unit 225 leading and 202 at the rear, which arrived at 05.41. About two dozen passengers alighted from this train at Terminal 4, including a number of airport workers and airline passengers.

With this Piccadilly Line extension coming into service, all passenger trains to Heathrow travel from a new Crewsown station to the new Terminal 4, station (1.14 miles 22 minutes), then continue round the loop to Heathrow Central (2.68 miles 44 minutes), which was officially renamed Heathrow Terminals 1,2,3 on 1 April, before returning direct via Hatton Cross to London.

Work on the single-track loop began in February 1983. Tunnelling was completed to the new Terminal 4 station and installation of track, signalling and other equipment followed. The station was built beneath the Terminal 4 car park by the British Airways Authority.

The tunnel construction was carried out by Thyssen-Taywood - a joint venture between Thyssen Great Britain Ltd. and Taylor Woodrow Construction Ltd. Design and project management was undertaken by London Underground's own staff. The station was designed by LRT's Department of the Architectural Services Manager and the work was managed by Taylor Woodrow Construction Ltd. under the British Airways Authority's management fee contract. The main building contractor was John Laing Construction Ltd. and London Underground Ltd. was responsible for the project management.

Building the Terminal 4 Loop

Tunnelling for the new line was carried out in three sections, using three shields. One section was driven into the west end of the new Terminal 4 station from a working shaft 1.75 miles away at Wessex Road on the western perimeter of the airport.

Another section of more than 0.75 mile was bored from a working shaft near Hatton Cross station to the east end of Terminal 4 station, and the third section of about 0.75 mile went from the Wessex Road shaft to meet the existing Piccadilly Line tunnels west of Heathrow Terminals 1,2,3 station.

A new Junction was constructed at Hatton Cross and a 0.25-mile section of tunnel just east of the station was bored through the ground above restored. Some cracks in the cast iron tunnel segments were caused by ground movement in this area shortly before opening, which has now been consolidated by high-pressure cement grouting.

Most of the route is lined with 3.8m internal diameter prestressed concrete rings expanded against the ground. At enlargements, junctions and in areas of shallow clay cover, bolted segmental cast iron lining was used. The single tunnel of the new loop divides at the stepplate junction to link with the two original overrun tunnels at Heathrow Terminals 1,2,3 station.

The route is mostly situated in London clay at depths of up to 17 metres. Work at all sites had to comply with the special requirements of an operational airport. The height of plant and stockpiled material was limited to avoid radar interference.

For the first time in an Underground tube tunnel flat bottomed rails on pre-stressed concrete sleepers have been used in building the loop. Some of the concrete sleepers have been mounted in experimental resilient 'boots' to reduce noise and vibration. There are two ventilation shafts along the line, in addition to
the shaft in the airport centre. One is adjacent to the animal quarantine building in Bedford Road and the other near Perry Oaks Sewage Farm at Wessex Road. These are available for emergency detraing on the single-track loop, should a train become immobilised, and two 'dummy' exercises were held during the evenings of 12 February 1986 (using units 118 - 167) and again on 12 March 1986 (224 - 167). On each occasion, volunteer LRT and BAA staff were the 'passengers' and non-toxic smoke conditions were created. These two 'incidents' were simulated to see how long it would take to rescue a train full of passengers under emergency conditions from a stalled train. Unfortunately, the participants were unable to have a sneak preview of the new Terminal 4 station on either occasion, as the tunnel (see UN 291, page 35) was closed at the Hatton Cross end, and entry was gained from Heathrow Central, working 'wrong line' under an engineer's possession.

Terminal 4 Station

With one of the most spacious ticket halls on the Underground system, Heathrow Terminal 4 is designed to be as attractive and aluminium, has high pressure sodium lighting and has modern facilities for passengers and staff. Being designed for convenience, the stadium-shaped booking hall (750 square yards in area) leads straight on to the platform and the terminal's arrivals and departures lounges are connected with the station by a short passageway leading to escalators and lifts. In the reverse direction an illuminated sign WELCOME TO THE UNDERGROUND greets intending Underground travellers. A comprehensive travel information centre in the Arrivals Hall provides details on Underground and bus services. British Rail, Green Line, National Express and Fligelink information is also available. On the platform, a recorded announcement, timed with each train's arrival, advises passengers to alight for Terminal 4, but stay on the train for Terminals 1, 2 and 3. The new station, built beneath the Terminal 4 car park, instead of directly beneath the terminal (which was due to the delay in deciding which form of transport should serve T4) is designed for ease of handling luggage trolleys. This can be taken beyond the ticket barrier to the edge of the booking hall, but not on to the platform, for obvious safety reasons. Upright aluminium posts prevent one from venturing on to the platform with such a trolley. Booking office facilities and modern ticket machines have been set into the wall of the booking hall, to allow more passenger space and greater staff security.

On the box-shaped single platform, occasional figure 4's have been carved in the marble walls. The marble-type floor surface at the exit incorporates a pair of figure 4's placed back-to-back to form an arrow pointing to the way out. The usual Piccadilly Line blue frieze has been employed as have blue bucket seats arranged in groups of four. The Piccadilly Line diagram is arranged diagonally from bottom left to top right (instead of vertically as is normal) and in addition to the interchange line colours at some stations, principal stations served are also included. These are:

Interchange
Acton Town
Hammersmith
Earls Court

Named Stations
Rayners Lane
Victoria, Westminster, Tower Hill
High Street Kensington, Paddington

Green Park
Charing Cross (Jubilee)
Green Park
Piccadilly Circus
West End (Victoria Line)
Holborn
Liverpool Street

Surprisingly, this wall diagram is not at the entry point to the platform (at the western end) but at about midway. The platform has standard fluorescent lighting. A dot matrix indicator provides multi-lingual information and train arrival details. Set in the walls across the track from the platform are three sets of a new style multiple-screen advertising medium, being used on the Underground for the first time, each set comprising nine screens capable of forming one picture, individual pictures, or groups of pictures.

Your writer was surprised to find (with difficulty) only one inconspicuous No-Smoking sign at the platform entrance, with none on the actual platform.

The Opening

Work on the Terminal 4 project, originally planned for completion in 1987, was speeded up to coincide with the air terminal opening. Settlement of the ground around the tunnel caused the cracks in cast-iron tunnel segments which had been assembled in an open excavation. Work on the repairs involving grouting of the clay around the tunnel was finished in mid-March.

The Royal opening on 1 April was featured on the various TV news programmes. Three special trains were provided:

Train 464 - Units 112 + 171 for invited guests
Train 465 - Units 894 + 189 for Royal party
Spare train - Units 864 + 195

Each of the three trains was specially prepared for the occasion, having new UNDERGROUND blue and red circle bullseyes in place of the dumb red ones, and displayed TERMINAL 4 at the bar and red circle bullseyes in place of the white centres, those bullseyes on the new battery locomotives, having not taken part in the proceedings (or were 'Concorde' stickers on DMs 894 which were soon removed). The new UNDERGROUND blue and red circle bullseyes do much to enhance the appearance of the 1973 tube stock. Unlike the bullseyes on the new battery locomotives, which have white centres, those on 1973 stock have a hollow centre.
It was originally proposed that the red half-front of the special trains should be repainted Piccadilly line blue, but after a trial on DM 141 (which, on 1 April, sported an all-aluminium front, but not in service) did not blend with the aluminium finish. DM 141 was seen in service on 15.4.86 with a newly painted red cab front!

New Piccadilly Line Timetable

Although the new terminal 4 station did not open to the public until Saturday 12 April, the new working timetable (No. 21) was introduced from Monday 7 April 1986, with trains running non-stop throughout the new station. Although based on the previous timetable, additional trains have been provided, enabling existing frequencies to be maintained, as follows:

Mondays to Fridays -

Peak 73 trains (+2)
Midday 48 trains (+2)
Evening 40 trains (+1)

Saturdays -

Before 11.00 33 trains (+2)
11.00 to 18.30 40 trains (+1)
Evening 33 trains (+1)

Sundays -

Before 10.30 25 trains (+1)
After 10.30 29 trains (+1)

The main changes to the Piccadilly Line services can be summarised as follows:

Daily

All passenger trains on the Heathrow branch west of Northfields work via the terminal 4 loop. One train daily works empty east from Hatton Cross to Heathrow Terminals 1, 2, 3 before taking up a passenger working eastbound (MF and Saturday and returning empty to Acton Town (Sunday morning). All passenger trains arriving at T4, 2, 3 have a stand time upwards of 4 minutes to a maximum of 6½ minutes (Monday to Friday), and between 4 and 10 minutes Saturdays and Sundays. On occasions, when service frequencies permit (e.g. a five-minute stand), it is possible to catch the previous train by changing at T4, 2, 3. It will be interesting to see if stampedes occur of passengers and their luggage, once they become wise to the situation!

Monday to Friday

In the peaks, improvement made to Rayners Lane branch service, by increasing the number of trains to the central area (morning) and from the central area (evening) to 15 trains per hour - i.e. 4-minute intervals. With an identical service on the Heathrow branch, giving 30 trains per hour through the central area, a continuous 2-minute interval service operates eastbound from Acton Town from 08.00 to 09.10 and westbound at Hyde Park Corner from 16.56 to 17.52. In the opposite directions (i.e. westbound morning, eastbound evening, the main peak running non-stop) it has been possible to catch the previous train by changing at T4, 2, 3. It is now possible to catch the previous train by changing at T4, 2, 3. It will be interesting to see if stampedes occur of passengers and their luggage, once they become wise to the situation!

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With the all-day Olympia service and increased Wimbledon-Edgeware Road service in the peaks, the maximum stock is thus increased as follows:

61 x 6-car D stock (+2)  
9 x 6-car C stock (+2)  
Total - 70 trains (+4)
### EARLIEST STARTS AND LATEST FINISHES:

<table>
<thead>
<tr>
<th>Line</th>
<th>Earliest Start</th>
<th>Latest Finish</th>
</tr>
</thead>
<tbody>
<tr>
<td>Metropolitan No.1</td>
<td>231: 04.35 Hammersmith depot</td>
<td>231: 01.37 Hammersmith depot</td>
</tr>
<tr>
<td>Metropolitan No.2</td>
<td>42: 04.03 Uxbridge sidings</td>
<td>7: 02.11 Neasden depot</td>
</tr>
<tr>
<td>East London</td>
<td>173: 05.03 New Cross depot</td>
<td>171: 01.06 New Cross depot</td>
</tr>
<tr>
<td>Jubilee</td>
<td>307: 04.54 Neasden depot</td>
<td>341: 01.30 Neasden depot</td>
</tr>
<tr>
<td>Northern</td>
<td>21: 04.21 Edgware depot</td>
<td>25: 01.52 Edgware depot</td>
</tr>
<tr>
<td>Victoria</td>
<td>210: 04.43 Northumberland Park dt.</td>
<td>243: 01.13 Northumberland Park depot</td>
</tr>
<tr>
<td>District</td>
<td>30: 04.15 Barking sidings</td>
<td>4: 01.59 Barking sidings</td>
</tr>
<tr>
<td>Piccadilly</td>
<td>265: 04.20 Northfields depot</td>
<td>300: 02.07 Northfields depot</td>
</tr>
<tr>
<td>Central</td>
<td>110: 04.14 Loughton sidings</td>
<td>2: 01.12 Woodford sidings</td>
</tr>
<tr>
<td>Bakerloo</td>
<td>214: 05.12 London Road depot</td>
<td>231: 00.58 London Road depot</td>
</tr>
</tbody>
</table>

### EARLIEST AND LATEST PASSENGER WORKINGS:

<table>
<thead>
<tr>
<th>Line</th>
<th>Earliest Passenger Departure</th>
<th>Latest Arrival &amp; Origin</th>
</tr>
</thead>
<tbody>
<tr>
<td>Metropolitan No.1</td>
<td>05.01 Hammersmith-Whitechapel</td>
<td>00.54 Hammersmith (00.20 ex-Whitechapel)</td>
</tr>
<tr>
<td>Metropolitan No.2</td>
<td>05.07 Wembley Park-Baker Street</td>
<td>01.01 Wembley Park (00.45 ex-Baker St.)</td>
</tr>
<tr>
<td>East London</td>
<td>05.27 New Cross-Whitechapel</td>
<td>00.41 New Cross (00.29 ex-Whitechapel)</td>
</tr>
<tr>
<td>Jubilee</td>
<td>05.25 Wembley Park-Charing Cross</td>
<td>00.49 Wembley Park (00.23 ex-Charing Cross)</td>
</tr>
<tr>
<td>Northern</td>
<td>05.22 Morden-Edgware via Bank</td>
<td>01.11 Morden (00.11 ex-Golders Green via Bank)</td>
</tr>
<tr>
<td>Victoria</td>
<td>05.32 Seven Sisters-Brixton</td>
<td>00.56½ Seven Sisters (00.17 ex-Brixton)</td>
</tr>
<tr>
<td>District</td>
<td>05.02 Acton Town-Upsister</td>
<td>01.09 Wimbledon (00.53 ex-Earls Court)</td>
</tr>
<tr>
<td>Piccadilly</td>
<td>04.59 To-Cockfosters</td>
<td>01.24½ To (01.00 ex-Acton Town)</td>
</tr>
<tr>
<td>Central</td>
<td>05.15 Debden-West Ruislip</td>
<td>00.58½ West Ruislip (00.33 ex-White City)</td>
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<tr>
<td>Bakerloo</td>
<td>05.28 Elephant &amp; Castle-Queens Park</td>
<td>00.50 Queens Park (00.23 ex-Elephant &amp; Castle)</td>
</tr>
</tbody>
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### SUMMARY OF TRAINS IN SERVICE:

<table>
<thead>
<tr>
<th>Line</th>
<th>Monday to Friday</th>
<th>Saturday</th>
<th>Sunday</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Peak</td>
<td>Morn</td>
<td>Aft</td>
</tr>
<tr>
<td>Metropolitan No.1</td>
<td>WTT No.284 - 7.4.86</td>
<td>16</td>
<td>11</td>
</tr>
<tr>
<td>Metropolitan No.1</td>
<td>WTT No.285 - 7.4.86</td>
<td>14</td>
<td>14</td>
</tr>
<tr>
<td>Metropolitan No.2</td>
<td>WTT No.283 - 4.6.86</td>
<td>40</td>
<td>16</td>
</tr>
<tr>
<td>East London</td>
<td>WTT No.113 - 7.4.86</td>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td>District (main)</td>
<td>WTT No.6 - 12.5.86</td>
<td>61</td>
<td>39</td>
</tr>
<tr>
<td>District (C stock)</td>
<td>WTT No.4 - 19.11.84</td>
<td>9</td>
<td>4</td>
</tr>
<tr>
<td>Total Surface Stock</td>
<td>145</td>
<td>87</td>
<td>87</td>
</tr>
<tr>
<td>Bakerloo</td>
<td>WTT No.6 - 12.5.86</td>
<td>25</td>
<td>17</td>
</tr>
<tr>
<td>Jubilee</td>
<td>WTT No.4 - 13.5.85</td>
<td>23</td>
<td>16</td>
</tr>
<tr>
<td>Piccadilly</td>
<td>WTT No.21 - 7.4.86</td>
<td>73</td>
<td>48</td>
</tr>
<tr>
<td>Northern</td>
<td>WTT No.35 - 26.3.84</td>
<td>82</td>
<td>46</td>
</tr>
<tr>
<td>Victoria</td>
<td>WTT No.19 - 3.6.85</td>
<td>34</td>
<td>23</td>
</tr>
<tr>
<td>Central</td>
<td>WTT No.47 - 19.11.84</td>
<td>75</td>
<td>37</td>
</tr>
<tr>
<td>Total Tube Stock</td>
<td>312</td>
<td>187</td>
<td>191</td>
</tr>
<tr>
<td>Grand Total</td>
<td>457</td>
<td>274</td>
<td>278</td>
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</tbody>
</table>
Those readers who keep up to date with new Working Timetables will realise that Victoria Line WTT No. 19 originates from October 1984, at which time it catered for one permanent cancellation, making 33 trains in relation to Watford-Broad Street. This is that which saw the restoration of all 34 trains in the peaks.

Similarly, it would have been noticed that a new Bakerloo timetable has been listed, but not reviewed hitherto. This was scheduled to take effect from 12 May 1986 - the date of the new BR timetable, which includes 15.37, 13.40, 11.44, 9.19, 7.34, and 5.50 to Watford-Broad Street (daily) and Watford-Broad Street (peaks only).

There is no change to periods of operation of Bakerloo services, no change to the basic service intervals, nor any changes to trains in service at the respective times of the day. The main changes affect timings north of Queen's Park, which are only of a minor nature. There continues to be 11 departures from Harrow & Wealdstone in the morning peak and 11 arrivals in the evening peak. The intervals between trains to and from Harrow now vary from 6-20 to 9-19 minutes in the morning, and 9-20 to 9-24 in the evening.

The only other notable change is the specification of platforms at Elephant & Castle for reversing.

DRILLING FOR TRAINS!

On Tuesday 4 March 1986, Central Line train 15 (1), the 10.28 Ealing Broadway to Hainault via Newbury Park, struck an obstruction in the tunnel at about 35 mph, whilst travelling between Leytonstone and Wanstead on the inner rail at 11.22. This obstruction turned out to be a 200 mm diameter drill, which had penetrated the roof of the tunnel underneath near the Whipp's Cross roundabout, where test borings for a proposed Hackney to M.11 link road were taking place. The drill bit was broken on impact, causing extensive damage to the driver's side of leading driving motor car 15.31. Fortunately, the driver suffered only minor injuries, having ducked when realising what was happening.

He then drove the train into Wanstead station from the rear with the guard in front, one of the passengers relaying messages along the train because the accident had rendered the driver-guard train telephone inoperative. Train 15, the 10.52 ex-Ealing was emptied of its passengers at Leytonstone and sent forward to investigate, at which time the nature of the problem had not been established due to defective emergency communication (DRI-CO - driver to controller). Meanwhile, the contractor performing the drilling, realising the loss of the bit, but with a handheld camera probe, which was hit by train 15. This train was not so badly damaged, as it was travelling at caution speed - much slower than train 15.

As if this wasn't enough, at 11.44, train 31, the 11.24 Epping-West Ruislip had a person under the train at Snaresbrook westbound, blocking that branch, which was hitherto being used additionally by diverted Hainault trains.

Central Line services were thus interrupted between Leytonstone and Hainault/Woodford. Through services between Leytonstone and Hainault were restored at 13.40, which allowed some trains to be run via the Hainault loop and the outer rail via Newbury Park back to Leytonstone. Services on the inner rail through Wanstead were resumed at 16.37, having moved the damaged trains to Hainault depot and made temporary repairs to the tunnel roof. Damaged train 15 was later moved to Ruislip depot and by early-April, work was in hand to replace DM 1531 with 1659. This latter car is an undamaged one from the Holborn collision of 9 July 1986 and having been storied in the open for most of the intervening period, needs much work done on it to make it roadworthy.

THE STARLIGHT EXPRESS RAILTOURS

by Nick Mitchell

Like an ageing prima donna, the 1938 Tube Stock has been making a number of farewell appearances, the latest of which took place on Sunday 6 April, with a repeat ('prepeat'?) performance one week earlier of just under an hour on the second of these tours, although (from talking to those who travelled on both tours) it is understood that the earlier tour ran in a very similar manner.

The tour left White City on time at 09.15 and ran to Ruislip depot, with a brief photostop at Uxbridge. After this, a 9.30 coach became the depot and ran into Ruislip siding, reversing there onto the Metropolitan Line and running to Harrow-on-the-Hill for another photostop. Continuing south it ran via the Jubilee and Bakerloo metals to Elephant & Castle, where it reversed and ran to Harrow & Wealdstone. Everybody had to detrain here, while the train reversed in the sidings, since British Rail feared that the additional weight of a loaded train might prove too much for their permanent way and cause a derailment.

The weather had started out dull, becoming a little brighter by 10.00, but by the time the train left Harrow & Wealdstone, it was starting to rain. Returning south, the train ran back to Elephant & Castle and then up to Stanmore, where there was a lunch break of just under an hour. By this time it was raining in earnest and very cold, too. This was a very dreary break as there is nothing to do in the vicinity of Stanmore station at 14.00 on a cold, wet Sunday - no shops open - so most people spent the time queuing for the refreshments, which LRT catering had laid on.

The wet weather persisted through most of the afternoon, spoiling photography, but not the interest of the itinerary, which was south to Neasden depot, where the train reversed in the Klondyke sidings and then via the flyunder before running to Uxbridge. From here, it ran to Acton Town, reversing in the sidings, then to Northfields (photostop) and on, round the Heathrow loop (which did not come into regular use until the next day). This was the highlight of the tour, because the train halted for a few minutes at the new Terminal 4 station, and the passengers were able to alight and inspect the platform at which the Royal couple had alighted five days previously. Everybody seemed to be very impressed with this new station, which was brand new and spotlessly clean; however, the passage of the train through the (until then) little-used tunnel had stirred up considerable amounts of dust into the air.

The train then continued back to Acton Town east sidings, where it again reversed, this time running to Ealing Broadway to rejoin the Central Line and return to White City, arriving just after 18.20. During the day, it had run within five minutes of its booked time - no doubt this was made easier by the long layovers scheduled at reversing points, which enabled any late running to be easily made up.
Although this was the end of the official railtour, participants were allowed to continue on the train for its run back to West Drayton (with only one stop, at Northolt). This was achieved at a fine pace, clocking 51 mph at one point - the highest of the day. A fair number of enthusiasts rode on this segment and were therefore on hand to witness 1958 Tube Stock disappearing off into the distant dozen, for nearly two-thirds of the last trains left the central area at about midnight instead of about 4.45 a.m. - normal last trains restored from 6.30 a.m. on Wednesday 11th April.

This new edition of the familiar folder diagram, which the very precise times quoted apply is not published as a guide to individual journeys, but rather as a guide to the overall layout of the system, and which will contain the platforms of a new station at Brockley Hill. The viaduct is 530 yd long and of brick arch construction except at its crossing of Watford Way where there will be four plate girder spans, two of them to allow for future widening of the road, and at the site of Brockley Hill station where the line is to cross a new road on another plate girder span. The ticket hall of Brockley Hill station will be situated in one of the arches.

Central Line Timetables

Metropolitan Saloon Stock

Mention was made in UN 298, page 50, regarding Metropolitan stock used as tank target units during the war. Apparently, between September 1942 and January 1945 Acton Works built 19 'Tank Target Units', each consisting of a powered bogie and chassis. Each was equipped with a pair of 150 hp 650V traction motors complete with control resistances and positive (only) shoe gear. This latter feature suggests their use on these units being obtained from ex-Metropolitan (Hammersmith & City) motor cars.

POINTS OF INTEREST

Reference UN 291, page 32:

Brockley Hill A41 Viaduct

Page 32 of IMPROVING LONDON'S TRANSPORT (Railway Gazette 1946) states:

On leaving Edgware the new line reaches the viaduct which carries it across Watford Way and which will contain the platforms of a new station at Brockley Hill. The viaduct is 530 yd long and of brick arch construction except at its crossing of Watford Way where there will be four plate girder spans, two of them to allow for future widening of the road, and at the site of Brockley Hill station where the line is to cross a new road on another plate girder span. The ticket hall of Brockley Hill station will be situated in one of the arches.

FLY THROUGH TERMINAL 4

A new leaflet produced by British Airways (The World's Favourite Airline) shows several photographs of, and describes the new Terminal 4 building and facilities. On what forms the back coded 'FWT 2.86' is very similar to the previous one, coded 'FWT Cartography 3.85', but there are several small variations, in both the services shown and the presentation. The front leaf has an added white-on-blue block with 'Heathrow Terminal 4 Station opens 12th April', and on the map itself the broken lines for the T4 loop have been filled in, with three built-in arrows to show the direction of travel. The word 'Central' has been deleted before 'Terminals 1,2,3' in the name of that station.

In the presentation, there are some good changes and some bad ones. What seems a most unjustified change is at Kennington, where the previous presentation of two separate stations with a peak hour service joining the Charing Cross branch to the Morden line has been replaced by one interchange at a station administered by the Underground. Consequently, the sections of line in the key to explain Northern Line peak hour and District Line exhibition services have disappeared. The explanation for an open circle has been altered from 'Interchange with other Lines' to 'Interchange between Underground Lines', and moved to the block which has the explanations for the other symbols. The restricted hours of the Waterloo & City Line have been included in this block for the first time, and the station(s) to which the very precise times quoted apply is not stated. The Victoria Line colour is now made up of blue overprinted with black dots instead of pure blue as in the previous edition. This has made it appear closer to the blue of the Piccadilly Line, and consequently less easy to distinguish. The only colours without any dots are the red of the Central Line, the yellow of the Circle and the jet black of the Northern Line. Finally, the British Rail emblem at Queens Park has been included in a box which also includes the words 'Watford Line'. This is very similar to the previous presentation.

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Now that the Docklands Light Railway will be administered by the Underground, will it be shown on the underground diagram? Presumably the River Thames will have to be 'hent' to show the Isle of Dogs loop to begin with.

DPC
page of this triple-folding leaflet, a diagram at the top shows the airport and the location of Terminals 1, 2, 3 and Terminal 4, in relation to the Underground stations and nearby roads. At the bottom of the page, a designed route map of the Piccadilly Line (which 'ends' at Kings Cross) shows the T4 loop, with trains travelling in an anticlockwise direction. This is most confusing as it is contrary to all diagrams previously published. The diagram does, however, show T4 station as being served first after Hatton Cross, albeit in the geographically wrong position.

BRH

NOW WE'RE PUTTING OLYMPIA ON THE MAP

This new single-folding leaflet (356/17112/6M(1516A)) publicises the Underground and BR connections at Olympia. The front shows an enlarged section of the Underground map embracing West Kensington/Olympia/West Brompton/Earls Court/High Street Kensington stations, but with only Kensington (Olympia) actually named. The centre-folding section summarises the facilities offered - Underground services from 7.4, 8.6, BR services from 12.5, 8.6, plus a summary of perhaps what will be the most popular Underground fare. This double page also includes a picture of a D stock unit 7500 when new (and showing the reflection of CO/CP stock in the cab windows!). The back page lists actual departure times of Underground services from Olympia on Monday to Friday (separated into 'Morning', 'Afternoon' and 'Evening' periods) and Saturday.

BRH

INTERCITY DIRECT - British Railways Leaflet

This leaflet publicises the new services via Kensington Olympia, starting on 12 May 1986. It stresses that Kensington Olympia will be completely refurbished for the new service, and that the all-day District Line services will give handy connections to West London and Heathrow. The starting and finishing points of the seven trains in each direction are:

Southbound -
Four from Manchester and one each from Liverpool, Reading and Wolverhampton.
Three to Dover Western Docks (one connection to Folkestone Harbour), three to Brighton and one to Newhaven.

Northbound -
Three from Dover Western Docks (one connection from Folkestone Harbour), three to Brighton and one from Newhaven.
Three to Manchester, four to Liverpool.
Numerous European connections via the Channel Ports are detailed, the most distant being Moskva Bievorusski, reached off the 10.47 from Kensington. In fact, Kensington Olympia is also the gateway to Brussels, Paris, Amsterdam, Hamburg, Berlin, Rome, Vienna, Copenhagen and Warsaw - a role for a second train describer at Earls-Court, perhaps?

DFC

BOOK REVIEW

BYGONE RUISLIP AND UXBRIDGE by Dennis F. Edwards. Published by Phillimore & Co. Ltd., Chichester, Sussex, 1985. 96 pages, hard back with colour dust jacket. Size approx. 190 x 253 mm.
Price: £7.95.

This new publication by Metropolitan Railway ex- pert and Society Past President Dennis F. Edwards, is divided into two sections. The first, the Introduction, comprises 11 pages of text outlining the history of the areas covered. The other section, by far the larger, comprises 150 numbered photographs and plates, subdivided into the areas of Ruislip, Ruislip Manor, South Ruislip, Northwood, Eastcote, Ickenham and Hillingdon/Uxbridge. The changes in these areas during this 20th century area due to the railways that were built and there are thus no less than 30 photographs of railway interest, many of Underground subjects, plus others of transport interest (trams and trolleybuses). The only criticism is that your reviewer has is the absence of page numbers, which is partly compensated by a numerical list of illustrations before the Introduction. Although the book is not wholly devoted to railways, it is a fine publication and well worth owning.

LETTERS TO THE EDITOR

Sir,
London Transport Magazine

Any Society members who may be trying to collect a run of London Transport Magazine and its successor LT News (LT News since issue No. 270 dated 6 July 1984) may find the following notes of interest. The monthly London Transport Magazine first went on sale in April 1947. It replaced the free Pennyfare - London Transport Staff News, which had reached No. 90 (War Series) in March 1947. The new London Transport Magazine lasted until March 1973, but did not actually appear every single month. August-September 1950 is one combined issue. November-December 1950 is also a combined issue, but confusingly only shows 'December' on the front cover. Due to an industrial dispute in the printing industry, March 1956 and April 1956 did not appear. July 1959 and August 1959 were not published for the same reason and neither was December 1970. I have also noted that there was a special supplement reprinted from the August 1956 issue of London Transport Magazine. This was on the subject of advice for parents among LT staff, whose children were looking for a career and might wish to consider opportunities in London Transport. I know of no other such special supplements. The fortnightly newspaper LT News replaced LT Magazine in 1973. LT News No. 1 was dated 6 April 1973 and issues have been numbered consecutively ever since (except the issue of LRT News between numbers 305 and 307 which has no number or date on the cover itself) although issues have not always appeared at regular fortnightly intervals. Curiously, there is an issue number 231, dated 19 November 1982 and another numbered 251B of the same date. These two issues appeared to be identical at first glance, but a closer look revealed that the two items on page 5 of issue 231, about bridge D.29 at Ealing and tender invitations for Terminal 4 tunnelling, have been replaced by a page 5B in issue 231B which is headed 'Campaign Special - Back the Bus... or miss it!' It is not clear as to why this occurred, but presumably the print run was stopped part way through and the new page and altered number on the cover substituted for the old. Certainly the two issues are identical in every other respect, i.e., I have a copy of both myself, isn't life complicated!

Yours sincerely, P. Bancroft.
Alton, Hants.
2 April 1986.
Sir,

Metropolitan Electric Saloon Stock

I read with interest the notes on page 49 of Underground News No.292 regarding the above subject. I cannot help with any numbers, and in fact I can only add to their lack.

CHESK.W station goods yard also had a grounded coach body that arrived in 1942 - I used to work overlooking the yard, so spent some time watching operations. The coach was grey, but the paint peeled off, revealing the words METROPOLITAN RAILWAY along the top, under the roof line. I also have a vague idea that CHALFONT & LATIMER also had such a coach, but I am not certain.

At this time I also saw the first tender locomotive to use the Cheshaw branch - it was LNER 0-6-0 No.6118, confirmed by a note written on the paper of the firm I was working for at the time.

Yours sincerely,

N.Green.

Chesham, Bucks.

19 April 1986

Sir,

Alperton Station

The account in L’N 292 (NF 15/86) is not entirely correct, as, at the time of writing, there is still one permanent nameplate missing on the eastbound platform.

I would not normally ‘nitpick’ over such a small detail, but in this case I would not like to prevent Alperton from trying for a place in the record books for the longest-ever station modernisation. It was first noted in Underground News in April 1980 (page 144), so presumably would have started not later that February 1980, if not earlier. As mentioned in later issues of Underground News, there were long periods of non-activity.

I should be interested to know if any reader made a note of the exact date of the start of work. With further delay in fixing the last bullseye, perhaps the reconstruction period could extend to seven years!

Yours sincerely,

D.F.Croome.

Perivale, Middlesex.

19 April 1986

ROLLING STOCK ALTERATIONS

ADD for December 1985 and ADD in 1985 Rolling Stock Annual Summary (UN 290, page 20):

Rail Wagons repainted yellow livery - RW490 RW491 RW492 RW494

ADD for January 1986:

Rail Wagon repainted yellow livery - RW493

ADD for February 1986:

Battery Loco repainted yellow livery - L33

1959 Tube Stock:

Overhauled at Golders Green depot -

1180-2180-9181-1181 6th

1106-2106-1107 24th

1972 MkII Tube Stock:

Overhauled at Golders Green depot and returned to Neasden depot -

3251-4251-3531+3451-4551-3551 27th

(Jubilee Line stock)

A60/62 Stock:

O.P.O. Conversions -

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Unit | End | Ruislip | Acton | In |
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Note * includes ½-life overhaul.

A60/62 Stock Monthly Summary - 31.3.86:

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Total: 116 58

C77 Stock:

From Hammersmith to Acton Works for collision damage repair -

5701-6701 13th

Service Locomotives:

Battery Locomotives -

140 Acton Works to Lillie Bridge (ex-collision) 15th

L28 Lillie Bridge to Acton Works (for buckeye conversion) 21st

Miscellaneous Vehicles:

From Procor, Wakefield, new Rail Wagons delievered to Ruislip -

RW801 RW802 RW803 RW805 RW806 ) 12th RW807 RW808 RW809.

March, 1986

Note: Stock as delivered -

Not available -

Converted for OPO -

At Acton Works -

At Ruislip -

Un-converted -

78
In the past, the use of generators for railway maintenance was common, but as the rolling stock became more modern, oxy-acetylene cutting equipment was no longer appropriate. In the construction of rolling stock, oxy-acetylene cutting was also provided power for electric saws which were used to cut through the metal. Lighting equipment had progressed from old-fashioned oil lamps to powerful electric floodlighting, which was especially useful during night operations. When packing had been laid, the wheels of the vehicle were raised to the load on wooden packing, and once the appropriate packing was in place, the wheels were lifted by jacks, which were available to assist them, together with breakdown gangs—two shifts based at Ealing Common depot, and three shifts available from Neasden. Only one gang was available during the night.

Mr. Butt then presented a series of slides illustrating the wide variety of equipment used in breakdown operations. Earlier use of breakdown trains had given way to road vehicles for greater speed and flexibility. The increasing use of aluminium alloys in the construction of tools and equipment had meant that loads had become considerably lighter over the years, and this had enabled smaller vehicles to be used. Following the Moorgate disaster in 1975, a special communications vehicle had been added and this was fully equipped with BT telephones, LRT internal telephones and radio telephones to cover the period before the installation of landlines. The very small number of serious incidents had meant, fortunately, that there has been little need to use this vehicle.

Subsequent slides showed individual items of equipment carried on breakdown vehicles: these included large quantities of wooden packing and oxy-acetylene equipment for cutting and welding. Lightweight hydraulic jacks were used for almost all re-railing operations, as it was of course impossible to make use of cranes in tunnels. There were mechanical jacks, light alloy jacks, stretcher jacks which expanded from each end, and specialist hydraulic jacks which could be used in confined spaces by means of a separate pump connected by hoses. Immediately a rail vehicle had been raised by the use of jacks, it was necessary to support the load on wooden packing. Once the appropriate packing had been laid, the wheels of the vehicle were placed on a cradle which then could be pushed or more often pulled sideways in order to re-rail the wheels.

Lighting equipment had progressed from old-fashioned oil lamps to powerful electric floodlighting powered by generators. For very large jobs, the Lighting Section of the Signal Department would be called upon for assistance. Generators and oil lamps in the construction of rolling stock meant that oxy-acetylene cutting equipment was no longer appropriate. Investigations were still being carried out to find a new method of removing large amounts of aluminium.

Portable radios gave very useful links with control and could also communicate with other portable devices. Broken axles were rare mainly because of the use of ultrasonic testing, but devices were available to clamp axles both at the centre and to the wheels. Flat tyres were unfortunately more common. In earlier days a strip of metal was welded onto the flat, but in more recent times an arc of metal gave a far better profile.

Seized motors used to be dealt with by demeshing but this method had been superseded by the use of 'skates'—cradles with small wheels into which the wheel of the disabled vehicle was placed. With this device speeds of approximately 15 mph could be achieved, reducing to 5 mph over crossovers.

Mr. Butt then showed a selection of slides demonstrating a variety of procedures used to cut away damaged material in order to move a vehicle back to the depot, and to re-rail derailed vehicles. It was fortunately possible to avoid uncoupling derailed cars if at all possible, but on occasion this became necessary if they had become locked together. Times for re-railing a vehicle varied from four to five hours depending on such factors as the weather and the remoteness of the site.

In reply to questions from members, Mr. Butt and Mr. Paynter explained the various methods used to return damaged vehicles to the depot, including the use of battery locomotives and assistance from other trains. Care was taken not to overheat ballast resistors during prolonged running at low speed. Skates had proved extremely useful and reliable, especially since the installation of tapered roller bearings. Experience and skill usually ensured that a damaged car was within gauge, without the use of precise gauging measurements.

The potential dangers of insufficient trimming were fully realised, especially in relation to signalling and power cables within the tunnels. Experience over many years had shown that the specialised jacks and cradles which were designed to be trusted and interference from other departments was very rare. In cases where a person had fallen under a train, the Fire Brigade usually lifted the car although in serious cases breakdown engineers were also involved. Fire Brigade and Ambulance personnel were understandably reluctant to work in situations where the traction current had to be left on in order to move a train.

Callpoint examiners were available to deal with minor problems on trains.

Following the Moorgate disaster, attempts had been made to reconstruct the damaged cars in order to try to establish whether there might have been a brake failure. Allegations of brake failure were always treated with the greatest seriousness: often the proof was to be found in such apparently simple evidence as marks (or lack of marks) on the track, although sometimes it was necessary to remove part of the cab in order to establish the position of the controls. In serious collisions, however, controls and wiring were in any case liable to be damaged. In many cases, the use of electric brakes was likely to make proof even more difficult. Increasing sophistication might even lead to the need for aircraft-type black boxes to record various functions, and indeed some recording...
equipment had already been installed on the 1983 Tube Stock. Automatic Train Operation had eliminated the human element, but nevertheless incidents still occurred in stop situations when trains were under manual control.

The meeting concluded with a selection of slides taken after the Moorgate disaster, following which, Desmond Croome thanked the speakers for a most interesting and enlightening talk.

25th Anniversary Meeting - 12.4.86

Our new Chairman, Fred Ivey, introduced Mr. Barry Coward to members, who presented a very interesting programme of Underground subjects on video.

With the passenger opening of the new Terminal 4 station on the very day of this meeting, it was appropriate to cross the Channel to see and compare part of line 7, including the under river section, the inauguration of that line and of stock being the worst of 1959 and 1930's. The last film in the first part was devoted to tube station shelters, Wood Lane on the Central Line being featured in this film. An interesting shot from the cab showed departure from the loop platform at Wood Lane, onto the eastbound line and into the tunnel, followed by several station views. This showed the slick procedure that operated on delivery and collection - just 20 seconds were allowed at each station - in normal traffic hours.

The second part of the presentation began with a film made about the 1935-40 New Works Programme, the story biased towards the Central Line extensions, including a rare view of what reviewer assumes to have been Drapers Field depot, near London, and stated as a base for the equipping of the eastern end of the intended Central Line. Other interesting sequences included 1935 streamlined tube stock under construction. The next short film was of the Central Line platforms at Holborn under construction. It will be recalled that this station replaced nearby British Museum and offered better interchange facilities with the Piccadilly Line. Three-car CLR trains of both 'Ealing' and 'Minerva' stock were then seen, including control trailers in service, working the old CLR centre third rail arrangement. Still with the Central Line, a film entitled 'Seven More Stations' told the story of the official opening of the Leytonstone to Woodford extension in December 1947 (despite the fact that the alleged ceremonial train bore overhaul dates of 1/48 at one end and 2/48 the other - the camera never lies, but the film compilers might). The special train departed from Wanstead and travelled to Newbury Park, where we saw the inside of the new signal box, and other interesting views of standard stock. The film also included coverage of the rehabilitation of the standard stock cars stored during the war.

The programme continued with a film about the Tyne & Wear Metro in Newcastle, followed by a short piece 'I had an idea', which told the story of improving methods of renewing wooden treads on escalators. The final films were cab rides on the Metropolitan. The first, 1910-style from Baker Street to Uxbridge (with gaps!), was interesting to see the two-platform Finchley Road station, which has not really changed too much in 76 years, showed the shorter platform before being extended westwards towards the West End Road bridge, which passes over the railway. Arriving at Uxbridge station it was noted that the line in the goods yard adjacent to the west-bound track was electrified. It was also interesting to note that both Ruislip and Uxbridge had the station names in black on white on the canopy and facing the approaching camera - were they put there for this film? The final film of the evening was another cab ride, from Ruislip Manor to Wembley Park, on the front of Sarah Siddons, during the September 1982 railtours.

At the end of this special meeting, our Chairman thanked Barry Coward for compiling and presenting an interesting and varied selection of material, which was enthusiastically endorsed by those attending.
the shortest possible time - was last set up on 3 December 1981 by C.N. Mulvaney, who successfully visited all the (then) 277 stations in 17 hours 57 minutes, which was, was, 1981 was, when the 17 total was just after the closure of Blake Hall station.

This total of 277 stations at the end of 1981 comprised, of course, all stations served by Underground trains. However, stations with the same name but on different sites (Edgware Road - Metropolitan, District & Circle, and Bakerloo; Hammersmith - District & Piccadilly, and Metropolitan; and Shepherd's Bush - Central and Metropolitan) are each treated as two separate stations in the grand total.

The figure of 277 was reduced to 266 in 1982 by the withdrawal in September of the Bakerloo Line service to Watford Junction, deleting Wembley Central to Watford Junction (inclusive) from the list of stations served.

In 1984, five Bakerloo stations (Wembley Central to Harrow & Wealdstone) were restored, making 271 stations served by Underground trains, and the opening of Heathrow Terminal 4 on 12 April 1986 makes the total currently 272. The Society is pleased to announce that a new record for these 272 stations was set just two days after the T4 opening - on 14 April, when Robert Andrew Robinson, Peter David Robinson, Timothy John Clarke and John Garde, who were also previous record holders in 1981, covered them all in 19 hours, 51 minutes and 1/4 seconds.

MJS

Society Rule 19:
In the light of recent events, members are reminded of Society Rule 19, which reads -

MEMBERS MUST NOT USE THE NAME OF THE SOCIETY IN A MANNER WHICH MIGHT BRING DISCREDIT UPON THE SOCIETY.

This extends to the practices of attempting to obtain favours or provision of material(s) from London Underground staff.

The Timetable (Continued from front page)
Sunday 6 July
AFTERNOON & EVENING Library Meeting, from 15.00 to 21.00, at 62 Beauval Road, Dulwich, London, SE22 8UQ.

Thursday 10 July
LURS members are invited to this meeting of the Southern Electric Group (Southern Forum) at which Mr. J.C. Gillham will give an illustrated talk on 'The Watford Electric Stock'. 19.15 at the Jubilee Tavern (upstairs room), 79 York Road, London, S.E.1.

Friday 11 July
Talk, 'The Underground Ticketing System' by Mr. N.P. Agnew, Operating Department Representative (UTS Team), London Underground Ltd. 19.00 for 19.15 in the Conference Room, Baden-Powell House.

Friday 8 August
Talk, '120 Years of Underground Tickets - Part II - including Season Tickets', by Mr. B. Peak of the Transport Ticket Society. 19.00 for 19.15 in the Conference Room, Baden-Powell House.

Friday 22 August
Library Evening, 19.00. The Society's Library open for inspection at 62 Beauval Road, Dulwich, London, SE22 8UQ.

Friday to Monday 26 to 29 September
The Society intends operating a visit to Wuppertal in West Germany to visit installations at Wuppertal (Schwebebahn and Trams), Solingen (Trolleybuses) and Dusseldorf (LRT Systems and Trams). Travel will be by Rail/Ferry or Air to individual choice. If you wish to receive fuller details, please write to the Overseas Visits Organiser, Mr. J.F. Thomason, 24 Releye Square, London, SE16 1HS. Please enclose an SAE and state if you wish to travel by rail/ferry or by air.

Friday 14 November
On 17 November 1961, the London Underground Railway Society was formed. This specially arranged meeting looks back at the last 25 years of the London Underground system and how it has changed during that time. Entitled 'The London Underground, 1961-1986', the meeting will be illustrated with slides and will be presented by Mr. B.R. Hardy. 19.00 for 19.15 in the Conference Room, Baden-Powell House.

FROM THE PAPERS

Daily Telegraph:
20.3.86 - The cost of the Docklands Light Railway extension from Tower Hill to Bank is now estimated at £292 million, but no to the Canary Wharf consortium and will raise more than £285 million. Negotiations are continuing on the £27 million shortfall.
31.3.86 - The Greater London Council and six metropolitan county councils will cease to exist at midnight tonight.

4.4.86 - The Prince of Wales yesterday opened the £272 million underground station on the Heathrow Terminal 4 loop of the Piccadilly Line, but complained of being footsore after his 90-minute tour of the terminal itself.

7.4.86 - Improvements to London Underground services (fully reviewed elsewhere in this issue) being introduced today include extra rush-hour trains on the Rayners Lane, Uxbridge and Wimbleden branches, a full Monday-Saturday service between Kensington (Olympia) and High Street Kensington, a better off-peak service between Wood Green and Cockfosters and better connections on the Metropolitan Line at Moor Park and Harrow-on-the-Hill.

14.4.86 - Terminal 4 raises Heathrow's terminal capacity to 38 million passengers a year, but running restrictions limit movements to less than 57 million a year, unless larger aircraft are used, or more night flights are permitted.

16.4.86 - Lady Betjeman, wife of Sir John Betjeman, has died aged 76.

17.4.86 - Work started yesterday on the £18 million short-take-off-and-landing airport (STOLPORT) in London's docklands. It is due to open in the autumn of 1987.

The Guardian:
1.4.86 - Moscow's Lenin library, one of the grandest and best-known buildings in the city, is in danger of imminent collapse because of a new Metro station which has been tunnelled through the hill on which it stands (Vagankov hill, opposite the Kremlin).

London Alternative Magazine:
8.4.86 - An article on Highgate Cemetery says that it had an underground railway line to transport coffins from chapel to grave. (A possible similar underground railway at Ken­n­sal Green Cemetery was mentioned in UN 249, page 185).
GRAFFITI ON LONDON'S UNDERGROUND

by

Richard Cross

Over the past year or so, anyone who regularly uses the Underground cannot have failed to notice the increase in the amount of graffiti appearing over the stations. It is impossible to cover the whole Underground, the following notes summarise what has been recently seen, so that members and other readers are more aware of this growing menace. Certain lines and trains suffer more than others, presumably due mainly to the areas they serve. However, one cannot blame anyone or any groups in particular, without catching a person red-handed, which seems almost as impossible as containing this criminal vandalism. This ugly work not only applies to rolling stock and stations, but to bridges and trackside buildings as well.

(These notes are not intended to glorify these obviously sick persons, whose sole aim in life seems to be an obsession to deface other people's property with paint or felt pen, but to highlight just how bad the situation really is. Let us hope that the L.C.T. (if these buses are just as bad) will find the resources that are necessary to stamp this out - soon! Ed.).

The Bakerloo Line has been one of the worst hit lines, in terms of the amount of graffiti appearing in recent months. Stations worst affected tend to be the lesser used ones, such as those north of Paddington. The thought of members of the public being allowed to have more opportunities to practice their 'skills'. One example, soon both at Maids Vale and Kilburn Park, comprises the words 'Artful Dodger' written in bold goldie style lettering, which would have taken some time to write. Most of this graffiti has been removed of course, but was visible long enough for it to be noticed. At one stage, both Marylebone and Edgware Road had a line of graffiti in different colours running the length of the platform directly above the tiles on the platform walls and around the platform exits. Even cleaned-off graffiti is still slightly visible beneath fresh graffiti. Stations quite badly hit recently include those being modernised. Graffiti is appearing on the new tiling at Paddington and on the bare cemented walls. It has also appeared on the old tiles and posters behind the new steel framework at Embankment, where there is little chance of its being removed, it will soon disappear beneath the new enamelled panelling. The 1959 stock trains have also been the recipient of graffiti both inside and out. Some evidence remains where panels have been cleaned but still show marks of their previous decor. It is interesting to note that when the 1938 stock trains were in service up to November 1985, they were hardly touched. (Perhaps something can be said for painted rolling stock? Ed.).

On the Central Line, graffiti has been on the increase of late, but mainly on 1980 stock. A number of trains have been seen with large areas of the surface affected. Unit 155/4 has been virtually untouched, except for the usual defacement. One unit, 5212, has been seen with large areas of dark patches. One unit, 5591, was seen vandalised on 15 January, but had been cleaned off by 19 January. The only reason to do this was to deter the graffiti artists, it is as soon as it appears, so as to make their efforts a futile exercise.

The District Line is another of the least affected lines and the only noticeable graffiti seems to be defaced posters and Underground route maps, which has been around a lot longer than the recently imported American style graffiti which has appeared elsewhere. On several occasions, the enamel names at Plaistow have been defaced with a set design appearing all over them, but this is small, like old graffiti. Although the District Line is as yet doesn't seem to have suffered too much, car 7123 has been seen with the familiar 'cleaned' panels. The District Line does, however, include Mile End, which is probably one of the worst-hit stations on that line, although the general condition of the platform makes it far worse. Repainting at Bow Road halted about half-way through about two years ago and some of the platform wall area seems to have been used for removing excess paint from brushes.

The new platforms of the Jubilee Line are virtually untouched, except for the usual defacement of posters. Some graffiti has been seen on both 1972 and 1983 stocks, but most seems to have disappeared for the time being.

For some reason, the A60/62 stock on the Metropolitan Line has been affected worst of all. A great many units have the whole side of the train decorated in the American style graffiti covering all the aluminium panelling. Even when removed, it is still largely visible - units 5084, 5086, 5172, 5212 and 5215 to quote but five. The word walls have also been attacked with the recently imported American style graffiti on the outside brick wall of the train shed at Wembley Park. The interiors of trains have not escaped and car 6050 has been seen with writing on the melamine panels and windows. Some units have a 'logo' drawn below the adverst card holders at the front of the train. If the A stock is to remain in service for some time to come, it would seem likely that this form of vandalism will be on show into the 21st century, unless a more positive effort is made to remove it, as it is being to done on other lines. Once again, trains have been the target, rather than the stations.

Northern Line stations have been vandalised considerably with graffiti over the last few months. Worst affected are those on the Morden line with Kennington particularly. A disgraceful condition, with a mass of graffiti covering the platform, with the peeling paintwork. In recent weeks all the stations from Kennington and southwards have been repainted but this seems to have provided a clean surface to start all over again. Graffiti has also appeared on the platform facing walls at some stations, which would indicate that certain people are prepared to risk being electrocuted to do this, but no doubt aided by
the 'Next train in 'x' minutes' dot matrix indicators. Several trains were seen with some graffiti on the inside, but the District Line D stock, removal from the aluminium body has been very successful. Several stations east of Kings Cross have had more than their fair share of graffiti, although Caledonian Road, Holloway Road and Arsenal are near as well kept as others on the line.

Although this report gives a brief look at most lines, I do not use the Victoria Line to any great extent and consequently cannot give too accurate a picture. The worst affected area noticed recently has been at Oxford Circus on the fire-damaged platform and its connecting passageways. Temporary boards had been erected but some of these were covered in various graffiti and even though they were whitewashed over, the graffiti still showed through. Although some graffiti has been noticed on part of the station, and those that do look rather grubby, such as Finchley Park, where some of the tiling is missing on the northbound platform. This contrasts considerably with the newly modernised Piccadilly Line platforms, which are very clean and smart.

To conclude, I would like to emphasise that the above notes made from what I've seen when travelling on certain sections of the Underground, and not because I've specifically gone out to examine the effects of the growing menace. Therefore, this is a general summary, as it's quite a task to cover the whole system quickly to make notes. Personally, I feel it is very important to point these facts out, because unless something is done soon, most of London's Underground trains and stations will become vandalised. For example, it would be an easier job to list all the C and A stock units NOT sprayed, than those that are. A year ago, these trains were hardly affected.

**NEWSFLASHES**

**NE 10/86** - Unlike to NE 25/86, another possession of the Chesham branch from 21.15 Saturday evening until the start of traffic Monday morning 12-14 April took place, enabling the completion of the replacement of the two bridges at the Chesham end of the single track branch. The first occasion (22-24 March) saw the replacement of the Waterside bridge, with the later work concentrated on the Moor Road bridge. LRT engineers expect the new bridges to last for the next 120 years.

**NE 19/86** - The CRTC Journal, Railway Observer for March 1986 reports that the four ex-Chesham coaches, which have been out of use on the Bluebell Railway for a number of years, are to be refurbished to provide the rolling stock to celebrate the centenary of the Chesham branch, due on 12 May 1986. Motive power being considered for this event includes London Underground's D861 and also Quainton's Metropolitan, E-class 0-4-4T No.1. Watch this space!

Editor's note: The City & South London Railway will celebrate its centenary on 18 December 1986 - what can be organised for that event? In the meanwhile, belated congratulations to the Bakerloo Line – 80 years old on 10 March 1986, which went almost un-noticed, apart from a mention on Capital Radio's and LBC's travel spots that morning! The Piccadilly will also see its '80th' on 15 December 1986.

**NE 40/86** - To promote the new name 'Ryde Rail' an Open Day is being arranged at Ryde, St. John's Road depot on the Isle of Wight on Saturday 21 June 1986.

To update readers further (NF 33/86), work has now started on converting DM 10 to a re-styled front end and lighting modifications. Three-car train operation finished in week commencing 7 April 1986.

**NF 41/86** - The Centenary of the Mersey underground line in Liverpool took place in early-April, culminating with many special events on Sunday 6 April. These included an open day at Birkenhead North electric station, which was host to a variety of DMUs and diesel locomotives, the running of two EMUs in LMS red livery (the Wirral Line's class 503 between Birkenhead North and Rock Ferry and the privately preserved class 508 from Steamport at Southport, running between Birkenhead North and Hoylake), vintage bus services (free of charge) between North and Central stations in Birkenhead, and visits by horse bus to one of the Mersey Railway's pumping stations. A special exhibition was held in the former Mersey Railway offices at Birkenhead Central station, which included a working model of a section of Mersey Railway station, tunnel and rolling stock.

**NF 42/86** - It is reported that on Sunday 2 March 1986, a class 313 EMU from the Euston-Watford service (possibly 313 013) worked some services on the North London Line to and from Richmond. It did not work through to North Woolwich, however, due to engineering works at that end of the line.

**NF 43/86** - The platforms at Loughton have recently been resurfaced with black asphalt, together with work on the platform canopies, which have also been resurfaced. Some of the platform bullseyes have been vandalised, with one on No.1 platform missing altogether.

**NF 44/86** - Notices have appeared at Epping station stating that from 14 April, passengers for Ongar should travel in the front car only, due to the condition of the platform at Ongar. Notice stated that the front car would start the day and the platform will start in June and will take a further three months to complete.

**NF 45/86** - Barking station has been thoroughly cleaned up and renovated. This involved complete replacement of all the platform canopies, repainting all the paintwork and renewal of lighting from fluorescent to sodium. However, work on replacing the lights was not complete when last visited by your reporter at the end of February.

**NF 46/86** - The London Transport Museum reports that it hopes to open a CP stock cab simulator in the near future. Although initially it will be non-interactive, it is hoped that eventually a video disc will be linked to the driver's handle, thereby showing visitors how an Underground train is actually driven. The cab end was from DM 5425, which was scrapped by Booths of Rotherham, leaving Ruislip on 25.3.82.

**NF 47/86** - A modernised London Underground station opened on May 13 April 1986. Just two weeks after opening LU's newest station, the Prince and Princess of Wales opened a British exhibition, which includes a full-size ten-metre section of Underground platform. The section is of Kings Cross and features the abstract station decor, by British artist Paul
Opposite top:
The conversion of the Metropolitan Line's A60/62 stock to One Person Operation at Acton and Ruislip has given them a 'new look', which includes more powerful headlights, new windscreen wipers (and fitted additionally on the opposite side to the driver), a smaller driver's cab window that is fitted with missile-proof glass, and identification of ends by the letters 'A' and 'D'. At Chalfont & Latimer on 7 December 1985, a 'D' end conversion leads a southbound train, with DN 5223 nearest the camera.

Opposite lower:
A report on the Royal opening of Terminal 4 can be found on page 71 of this issue. Train 464, which took invited guests from Northfields to T4, then worked back to Northfields depot. However, train 465 seen here, which took the Royal couple from Hatton Cross to T4, then later took the guests back from T4 to Northfields and Acton Town, complete with special headboard, Terminal 4 destination blind and 'Concorde' sticker. It is seen at Acton Town after the ceremony on 1 April 1986.

Back page top:
In early-April, smoke emission tests were carried out in tunnel sections of the District and Circle lines, using the leaf-clearing road-rail Unimog twin unit T90477A/5, which apart from the actual leaf fall season, is unused for the rest of the year. During the night of 7/8 April 1986, motive power was provided by the first of the new battery locomotives, L62, seen at High Street Kensington, which was the first night of their use on engineers train duties.

Back page lower:
London Underground now has three Unimog road-rail vehicles in its fleet, the latest of which was delivered to Ealing Common depot by road on 8 April 1986. It is seen on the following day during its first test on rails and although it had acquired its stock number of L85 by then, it had not received an 'Underground' sign, nor its number plates. It has since been registered G622ZWT. Note the hydraulically-raised front coupler.

All photographs - R.J. Greenaway.

NEWSFLASHES (Continued)

NF 44/86 - It is reported that the North Downs Steam Railway has to leave its base in Chatham Dockyard with events for this summer having been cancelled. It will be recalled that this group have operated 1938 Tube Stock motor cars 10177 and 11177, albeit with steam power, during the summer of 1985. What lies in the future for these two tube cars?

NF 49/86 - Units overhauled at Golders Green depot are having white-on-black stickers applied indicating when and where the unit was overhauled. These can be seen on the DN ends, at the conventional overhaul date position. Intermediate end cars have the red-on-aluminium stamp. It is interesting to note that this includes 1972 stock, for in 1982 it was decided not to put dates on this (and 1973/C stocks), presumably because of the extended period (nine years) between overhauls.

NF 50/86 - New vinyl stickers have been observed on escalators at Victoria. Measuring approximately 379 x 98 mm, the top one third is black-on-white stating 'PLEASE STAND ON THE RIGHT', with the lower two-thirds boldly but simply stating 'NO SMOKING' in white-on-red. The whole sign has a black border.

NF 47/86 - Continued from bottom of page 83
Huxley, in ceramic tiles.
The Northern and Piccadilly Line platforms at Kings Cross are currently being renovated as part of the Underground's £75 million station modernisation programme. Work on the station began early in 1985.

TAIL PIECES

Heard over the P.A. of an eastbound Piccadilly Line train which, at Acton Town, was being diverted over the slow District Line in order to cover a gap in that line's service to Hammersmith -

"Your attention please. This train will be stopping at all stations to Hammersmith. I repeat, this train will be stopping at Chiswick Park, Turnham Green and ... or ... the other two."!

Heard over the P.A. of an eastbound District Line train approaching West Kensington (at which station the eastbound platform is too short to accommodate a full-length D stock train) -

"Good morning. Please note that at the next station, the rear two doors will be cut out."

Needless to say, there was no gang of men with oxy-acetylene cutting equipment, and the remainder of the journey was not as draughty as one was led to believe!

Underground News is printed and published by the London Underground Railway Society. Correspondence should be sent to the Editor Underground News, 'Heidi', 13 Castleton Road, Eastcote, Ruislip, Middlesex, HA4 9QQ. When writing to any Society Officer, please quote your membership number on all communications, including applications for visits. Members requiring a reply to their correspondence are asked to enclose a stamped addressed envelope.

The last full list of Society Officers' addresses can be found on page 12 of Underground News No. 289, plus the alterations on page 65 of UN 293.

Members are asked NOT to use the telephone when communicating with Society Officers, or make a personal house call, unless previously invited to do so.

Changes of address should be notified to the Registrar, 54 Beech Avenue, Eastcote, Ruislip, Middlesex, HA4 8UQ.

For non-receipt of journals, correspondence should be addressed to the Despatch Officer, 116 Kingshill Brandon Street, London, SE17 1UH. Members are asked to wait until the 25th of the month before writing about journals not received.